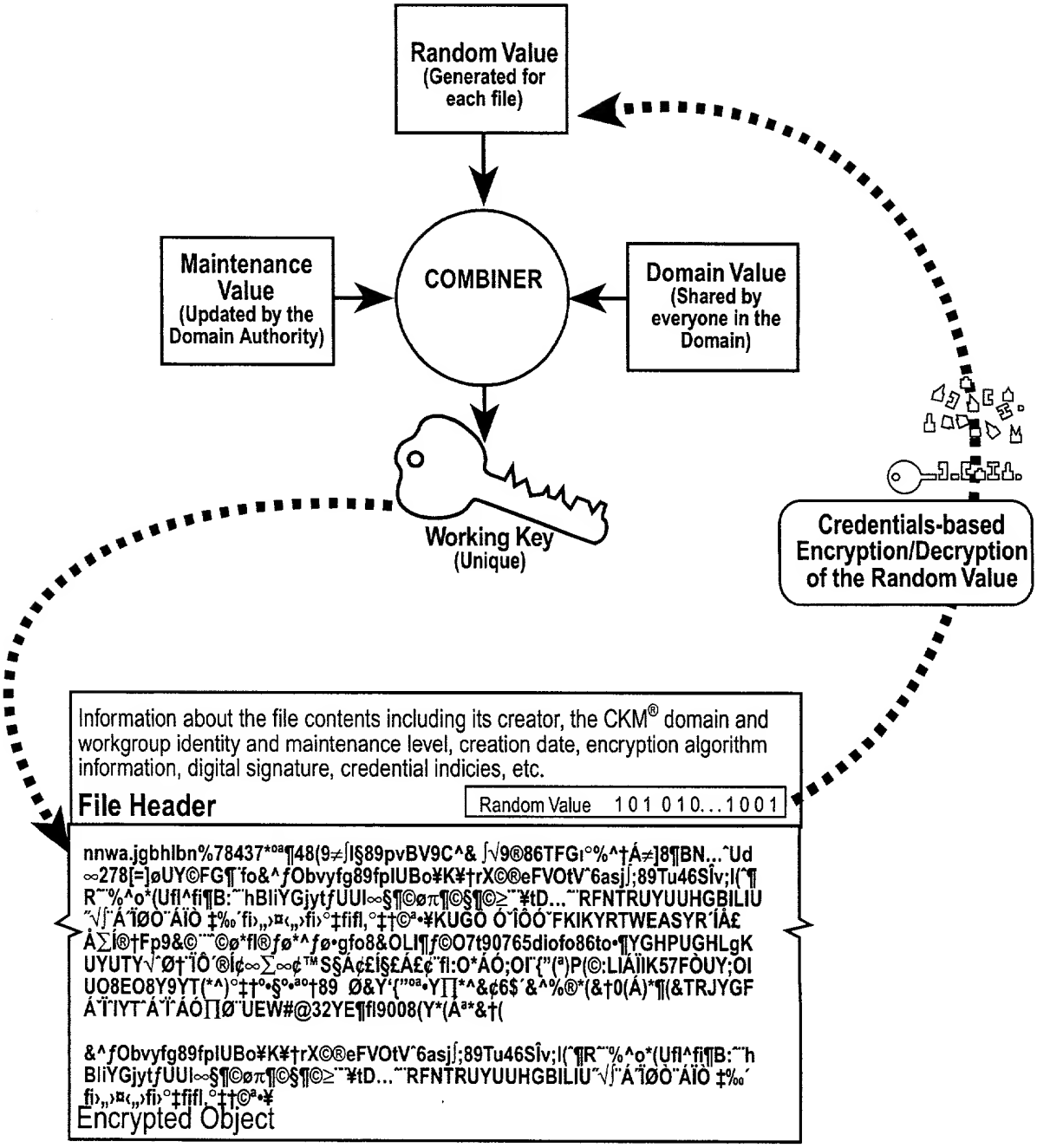
Random Value
(Generated for each file)
Maintenance Value
(Updated by the Domain Authority)
COMBINER
Domain Value
(Shared by everyone in the Domain)
Working Key
(Unique)
Credentials-based Encryption/Decryption of the Random Value
Information about the file contents including its creator, the CKM® domain and workgroup identity and maintenance level, creation date, encryption algorithm information, digital signature, credential indicies, etc.
File Header
Random Value 101 010...1001
nnwa.jgbhlbn%78437*ºª¶48(9≠∫I§89pvBV9C^& ∫√9®86TFGı°%^†Á≠]8¶BN...ˆUd
∞278[=]øUY©FG¶¨fo&^ƒObvyfg89fplUBo¥K¥†rX©®eFVOtV˜6asj∫;89Tu46SÎv;l(ˆ¶
R˜˜%^o*(Ufl^fi¶B:˜¨hBliYGjytƒUUl∞§¶©øπ¶©§¶©≥¨¥tD...˜¨RFNTRUYUUHGBILIU
˝√ƒ¨Á¨ÏØÒ¨ÂÏÒ ‡‰´fi›„›¤‹„›fi›°‡fifl,°‡†©ª•¥KUGÒ Ó˜ÎÔÓ˜FKIKYRTWEASYR´ÍÅ£
Å∑Í®†Fp9&©¨˝©ø*fl®ƒø*^ƒø•gfo8&OLI¶ƒ©O7t90765diofo86to•¶YGHPUGHLgK
UYUTY√ˆØ†¨ÏÔ´®Í¿∞∑∞¢™S§Á¿£Í§£Á£¿¨fl:O*ÁÓ;OÍ{"(ª)P(©:LIÄÏlK57FÒUY;OI
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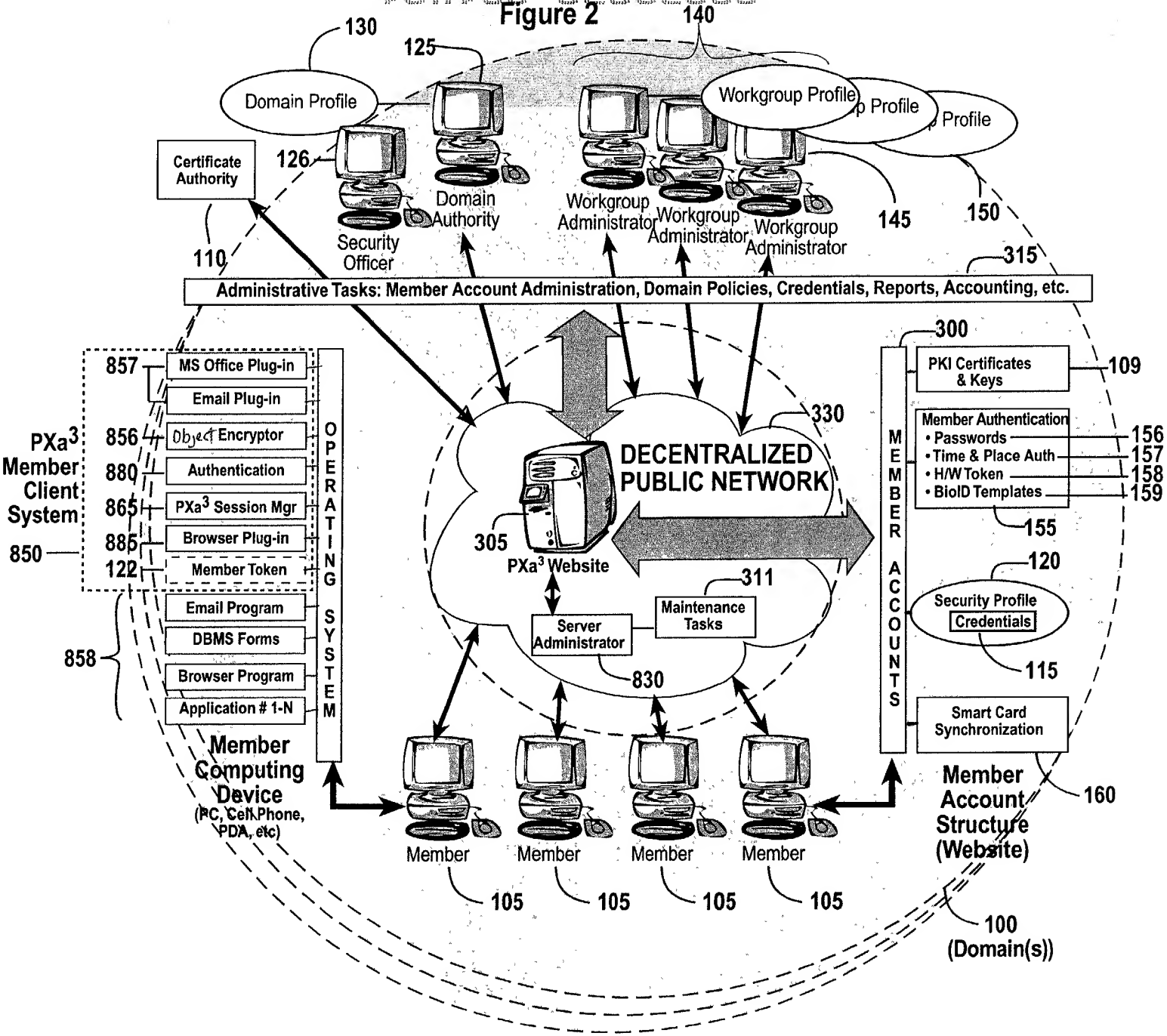
&^ƒObvyfg89fplUBo¥K¥†rX©®eFVOtV˜6asj∫;89Tu46SÎv;l(ˆ¶R˜˜%^o*(Ufl^fi¶B:˜¨h
BliYGjytƒUUl∞§¶©øπ¶©§¶©≥¨¥tD...˜¨RFNTRUYUUHGBILIU˝√ƒ¨Á¨ÏØÒ¨ÂÏÒ ‡‰´
fi›„›¤‹„›fi›°‡fifl,°‡†©ª•¥
Encrypted Object

Figure 1

Redacted

Figure 2



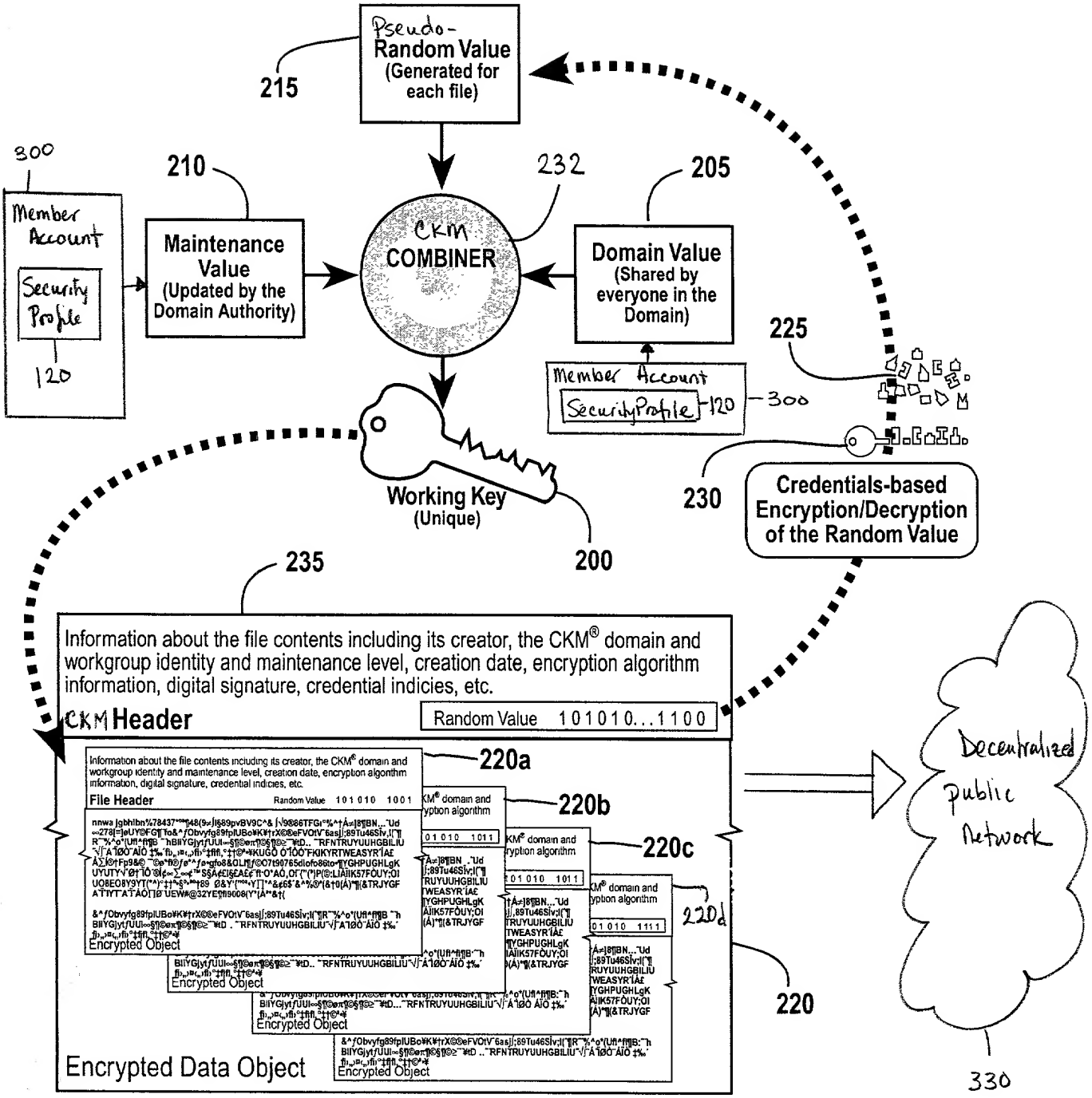
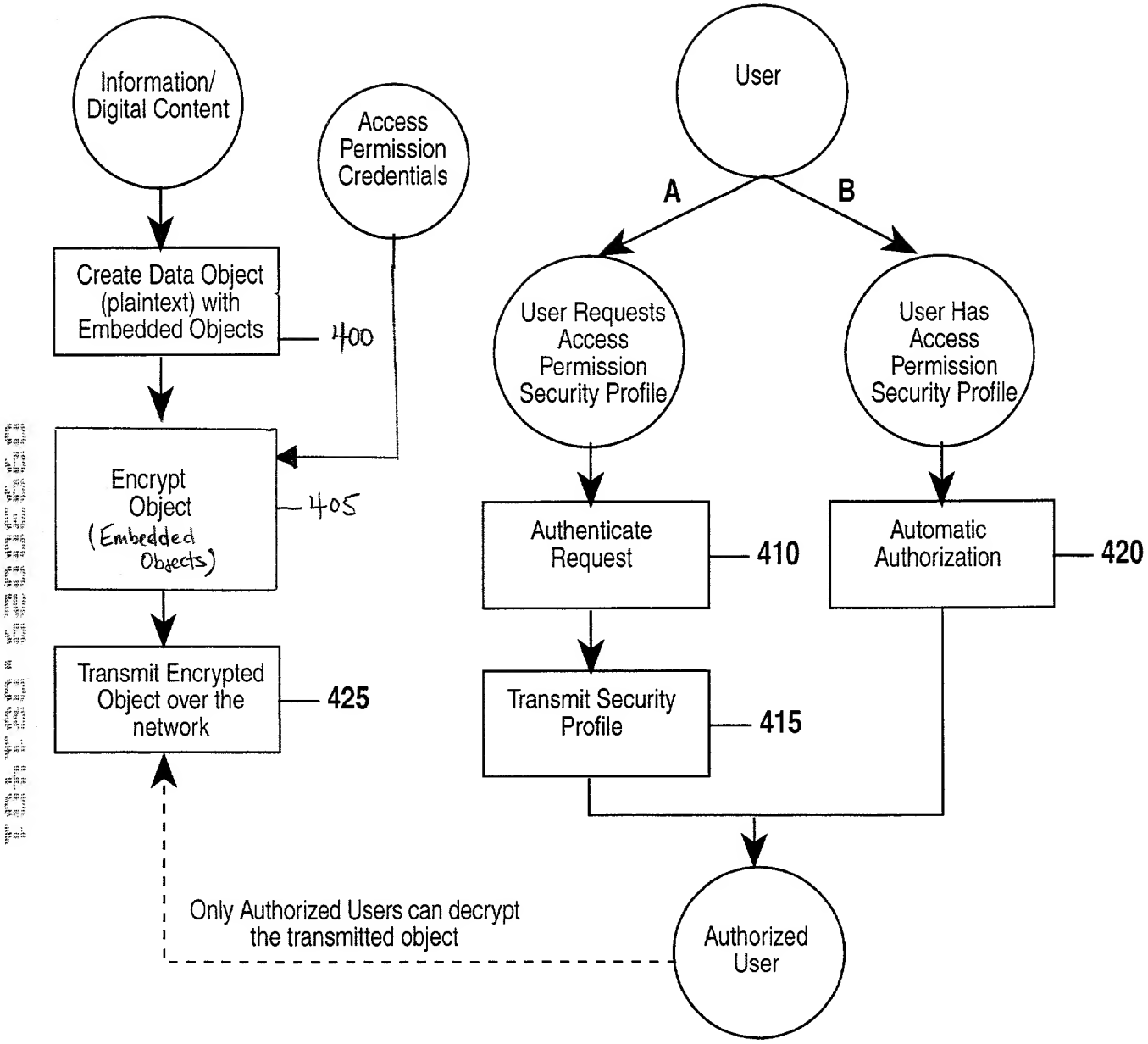

Pseudo-Random Value (Generated for each file)
215
300
Member Account
Security Profile
120
210
Maintenance Value (Updated by the Domain Authority)
232
CKM COMBINER
205
Domain Value (Shared by everyone in the Domain)
Member Account
SecurityProfile 120
300
225
230
Credentials-based Encryption/Decryption of the Random Value
Working Key (Unique)
200
235
Information about the file contents including its creator, the CKM® domain and workgroup identity and maintenance level, creation date, encryption algorithm information, digital signature, credential indicies, etc.
CKM Header
Random Value 101010...1100
220a
220b
220c
220d
220
Encrypted Object
Encrypted Data Object
Decentralized Public Network
330

Figure 3



Method for cryptographically securing distribution of information

Figure 4

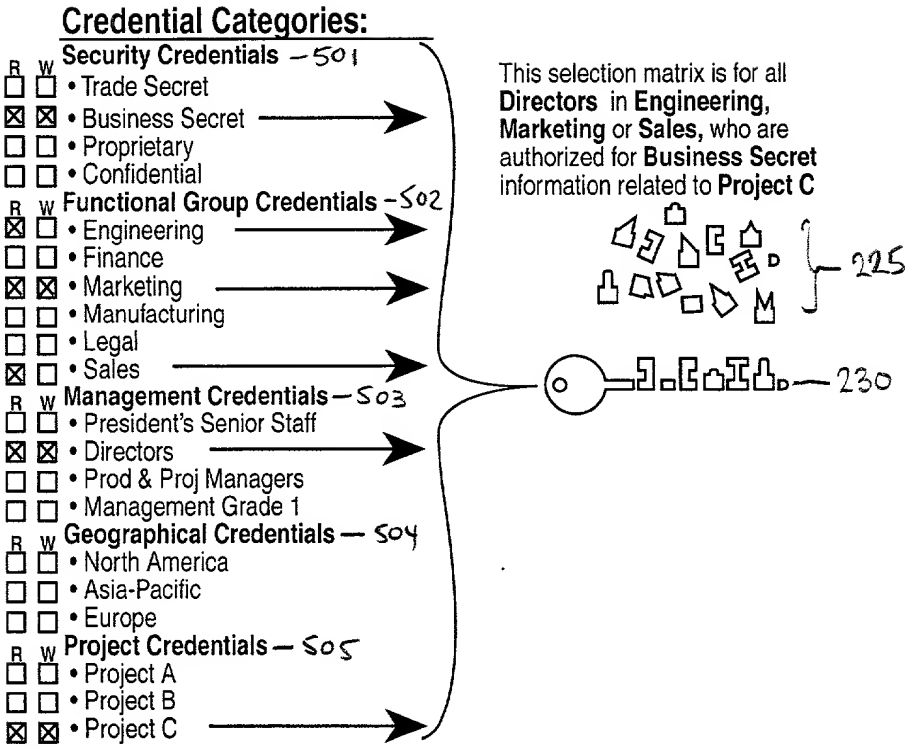
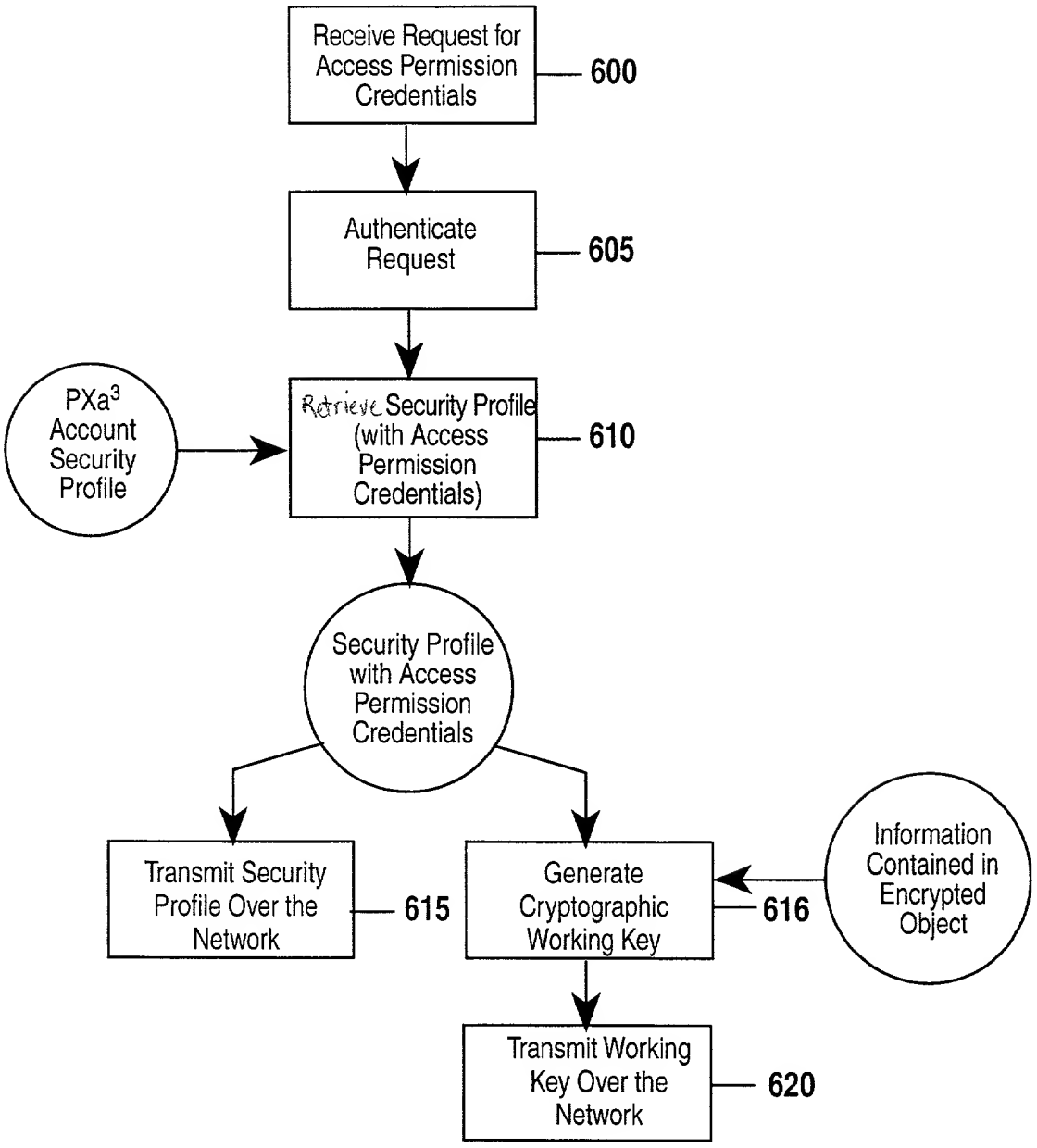
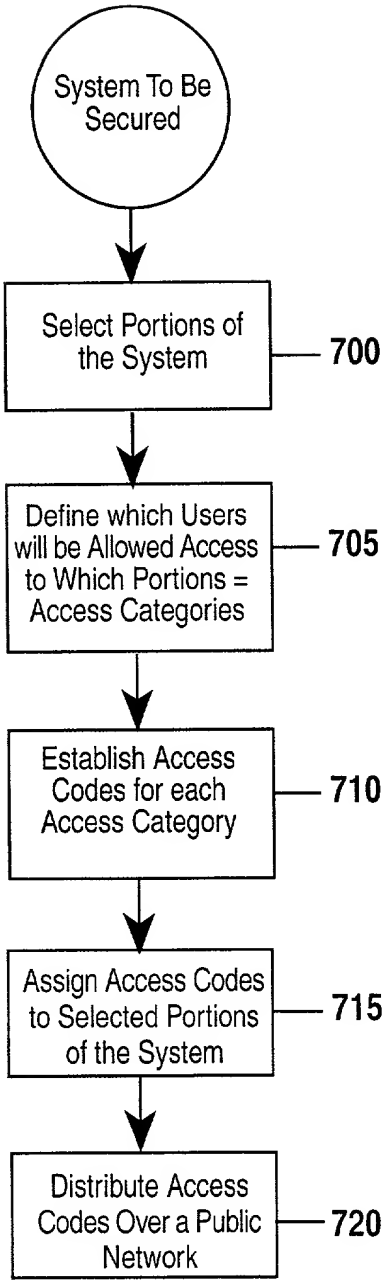

Credential Categories:
R W
Security Credentials – 501
• Trade Secret
• Business Secret
• Proprietary
• Confidential
Functional Group Credentials – 502
• Engineering
• Finance
• Marketing
• Manufacturing
• Legal
• Sales
Management Credentials – 503
• President's Senior Staff
• Directors
• Prod & Proj Managers
• Management Grade 1
Geographical Credentials – 504
• North America
• Asia-Pacific
• Europe
Project Credentials – 505
• Project A
• Project B
• Project C
This selection matrix is for all Directors in Engineering, Marketing or Sales, who are authorized for Business Secret information related to Project C
225
230

Figure 5



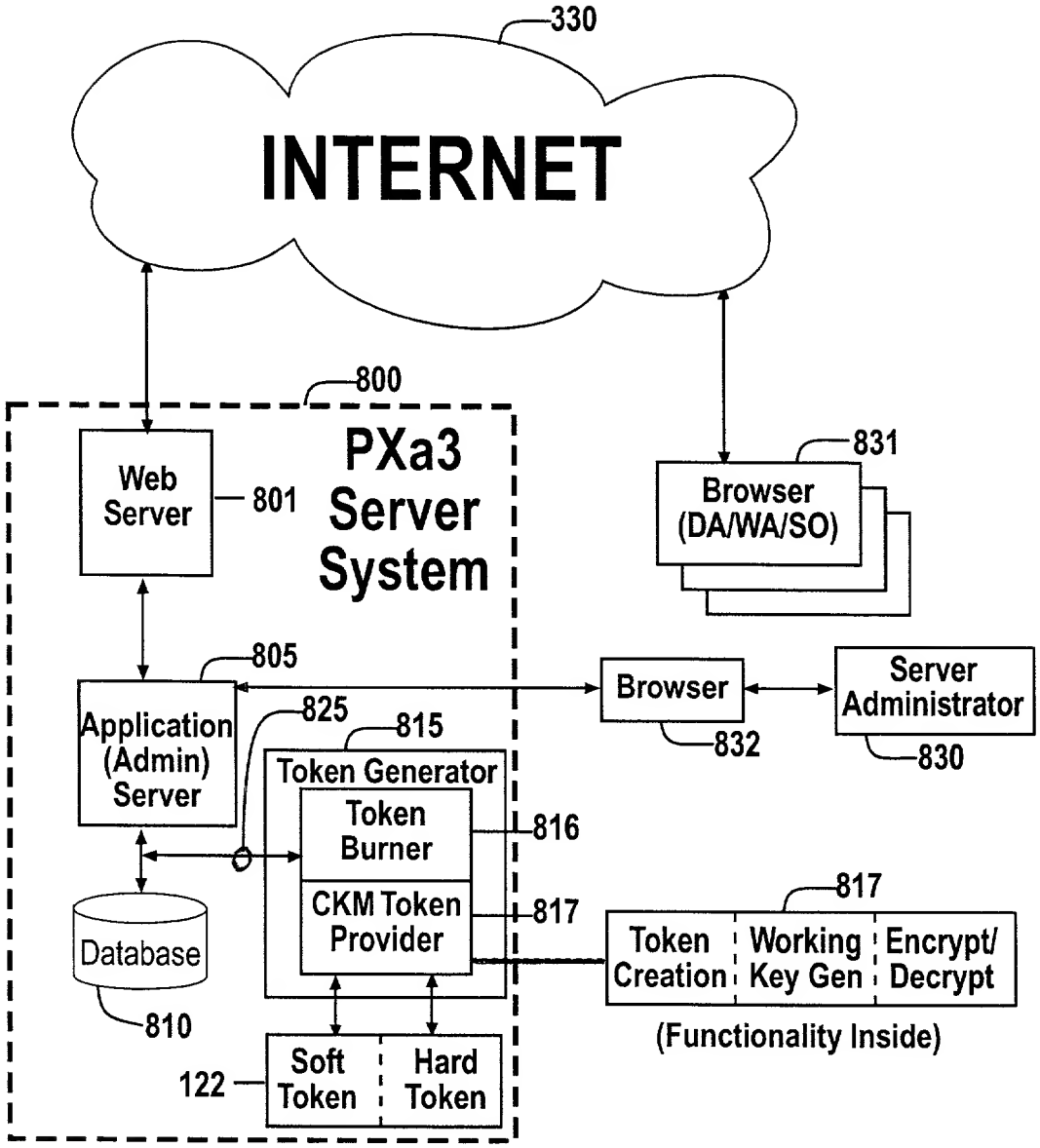
Method for Providing Decryption Capabilities to Decentralized Public Network Users

Figure 6



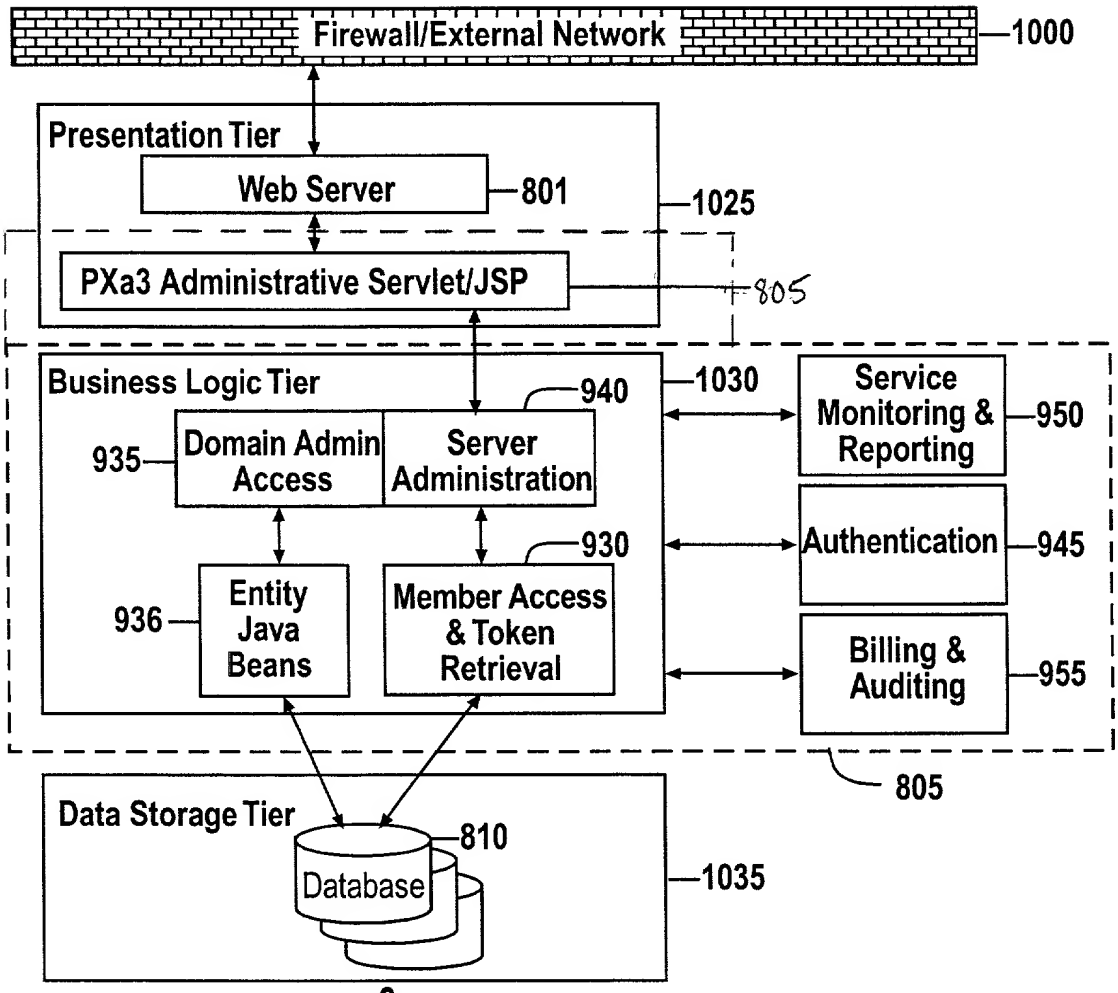
Securing a System

Figure 7



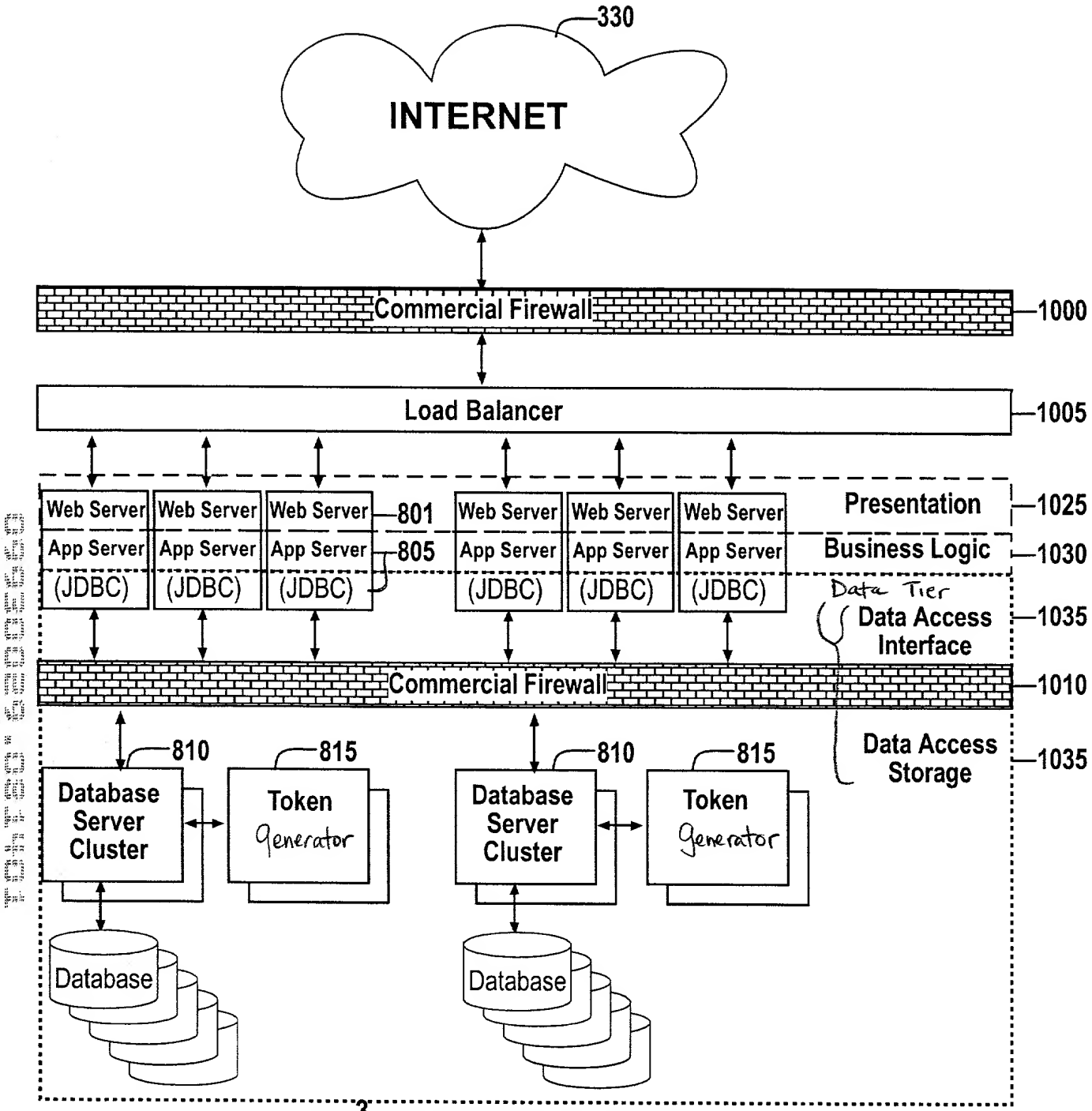
PXa^3 Web Administration Architecture
(Server-Side Detail)

Figure 8



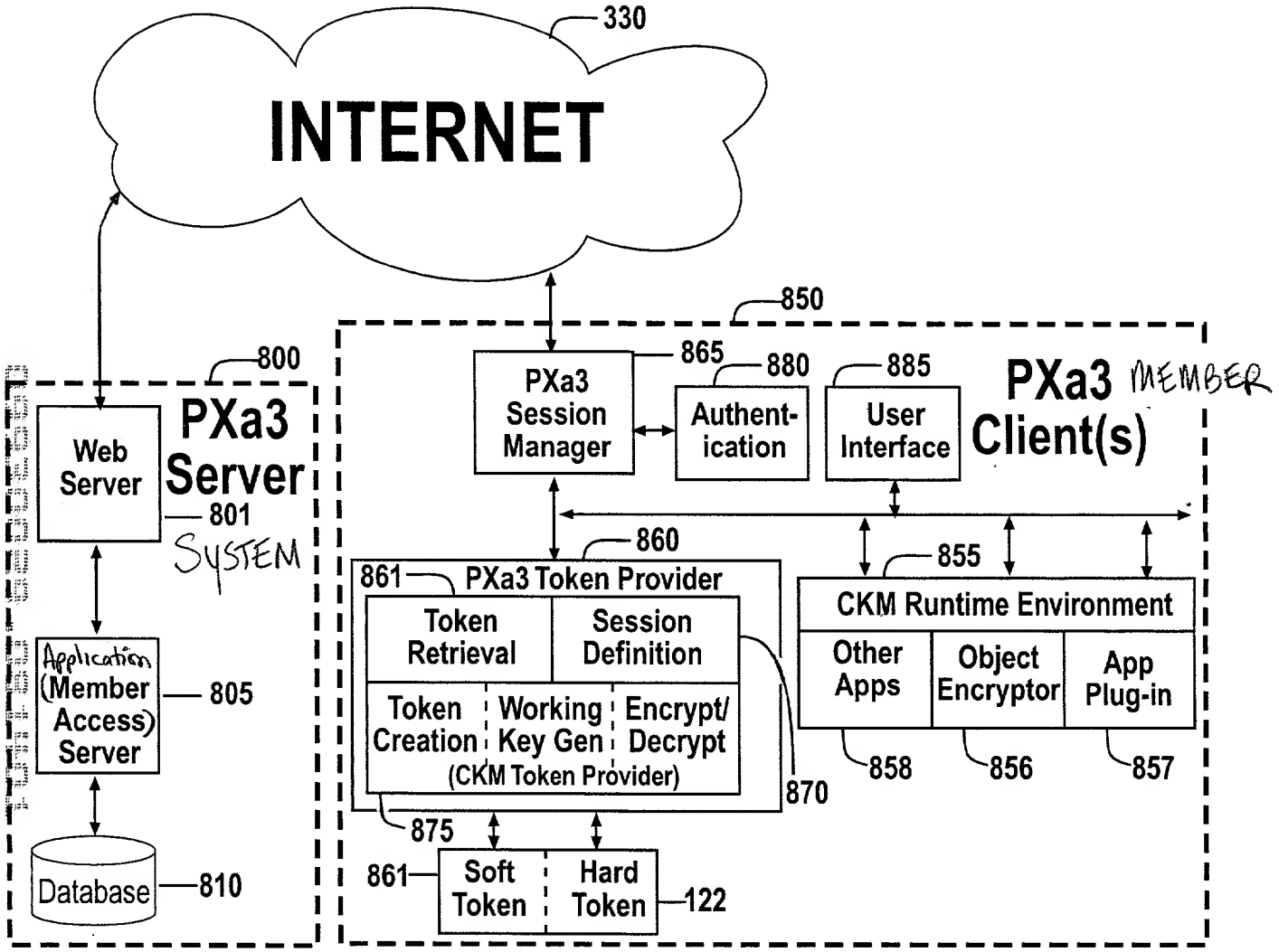
PXa^3 Administration Service

Figure 9



PXa^3 Internet Server Architecture

Figure 10



PXa^3 Member Service Architecture
(Client-Side Detail)

Figure 11